

What is claimed is:

[Claim 1] An apparatus comprising

- a. a task editor
- b. a task elaborator and
- c. an analysis engine.

[Claim 2] The apparatus of [c1], wherein the task editor is used to create a specification of allowable task methods, parameters, and parameter bindings, said specification suitable as input to a task elaborator.

[Claim 3] The apparatus of [c2], wherein the task elaborator is an automated planner.

[Claim 4] The apparatus of [c3], wherein the task editor obtains the initial task template from among a plurality of stored task templates.

[Claim 5] The apparatus of [c4], wherein the apparatus further references an environmental state definition, said state definition being time dependent.

[Claim 6] The apparatus of [c5], wherein the apparatus further references an ontology of task information that defines allowable methods, parameters, and parameter bindings.

[Claim 7] The apparatus of [c6], wherein the analysis engine is an simulator.

[Claim 8] The apparatus of [c7], wherein the analysis engine performs human workload estimation.

[Claim 9] The apparatus of [c6], wherein the analysis engine is a real-world exercise whose results are interpreted post-exercise.

[Claim 10] The apparatus of [c6], wherein the task elaborator creates a Markov Decision Process (MDP) representation.

[Claim 11] The apparatus of [c10], wherein the analysis engine is a MDP solver.

[Claim 12] A method employed by the apparatus of [c7], comprising

- a. editing a task template
- b. specifying the environmental state in which the task template is to be examined
- c. generating a plurality of task instances which are allowable given the task template specification and environmental state
- d. analyzing the task templates thus generated.